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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/476,372	01/03/2000	BYOUNG-CHUL SOHN	Q57096	7742

7590 02/20/2007
SUGHRUE MION ZINN MACPEAK & SEAS PLLC
2100 PENNSYLVANIA AVENUE NW
WASHINGTON, DC 200373202

EXAMINER

MEHRPOUR, NAGHMEH

ART UNIT	PAPER NUMBER
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2617

MAIL DATE	DELIVERY MODE
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02/20/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

**Supplemental
Notice of Allowability**

Application No.

09/476,372

Examiner

Naghmeh Mehrpour

Applicant(s)

SOHN, BYOUNG-CHUL

Art Unit

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to remark filed on 12/06/06.
2. ☒ The allowed claim(s) is/are 2-6 and 8.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Diallo T. Crenshaw with registration number of 52,778 on 08/25/06, wherein in **claim 8**, the present application teaches a wireless resource allocation method in a wireless communication system including a plurality of wireless terminals and a single access point having a bridge function, the method teaches "wherein an error occurrence message and allocating a wireless resource for retransmission of data and wireless terminal simultaneously when the access point detects a data error wherein the wireless resource is one of a bandwidth and a time slot. Further the present application teaches that the error occurrence message is sent to the corresponding wireless terminal while the wireless resource for retransmission is allocated to the corresponding wireless terminal during a downlink period within one frame comprising the downlink period with an uplink period" in frame comprising the down-link period and up-link period, the down-link period comprises a downlink reservation period, and the downlink period comprises a broadcast period, and wherein the wireless terminal does not send a wireless resource request message for retransmission of the data.

Allowable Subject Matter

2. **Claims 2-6, 8,** are allowed.

The following is an examiner's statement of reasons for allowance:

Regarding **claims 2, 8**, the present application teaches a wireless resource allocation method in a wireless communication system including a plurality of wireless terminals and a single access point having a bridge function, the method teaches "wherein an error occurrence message and allocating a wireless resource for retransmission of data and wireless terminal simultaneously when the access point detects a data error wherein the wireless resource is one of a bandwidth and a time slot. Further the present application teaches that the error occurrence message is sent to the corresponding wireless terminal while the wireless resource for retransmission is allocated to the corresponding wireless terminal during a downlink period within one frame comprising the downlink period with an uplink period" in frame comprising the down-link period and up-link period, the down-link period comprises a downlink reservation period, and the downlink period comprises a broadcast period, and wherein the wireless terminal does not send a wireless resource request message for retransmission of the data.

The closest prior art such as Chen et al. (US Publication 2004/0010744) teaches an efficient retransmission of data using symbol accumulation wherein the packet received in error is retransmitted at a lower energy-per-bit level concurrently in the same frame with the new packet. The destination device receives the data transmission and

retransmission, demodulate the signal, and separates the received data into the new and retransmitted packet. The destination device then accumulates the energy of the retransmitted packet with the energy already accumulated for the packet received in error and decodes the accumulated packet. The accumulation of the additional energy provided by the subsequent retransmissions improves the probability of a correct decoding. The throughput rate can be improved since the packet received in error is retransmitted concurrently with the transmission of the new data packet. The capacity is maximized since the retransmission of the packet received in error is at a lower energy level than that of the new packet. Chen fails to teach the present application teaches a wireless resource allocation method in a wireless communication system including a plurality of wireless terminals and a single access point having a bridge function, wherein an error occurrence message and allocating a wireless resource for retransmission of data and wireless terminal simultaneously. Chen fails to teach when the access point detects a data error the error occurrence message is sent to the corresponding wireless terminal while the wireless resource for retransmission is allocated to the corresponding wireless terminal during a downlink period within one frame comprising the downlink period with an uplink period" in frame comprising the down-link period and up-link period, the down-link period comprises a downlink reservation period, and the downlink period comprises a broadcast period, and wherein the wireless terminal does not send a wireless resource request message for retransmission of the data.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

3. Any responses to this action should be mailed to:

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Naghmeh Mehrpour whose telephone number is 571-272-7913. The examiner can normally be reached on 8:00- 6:00.

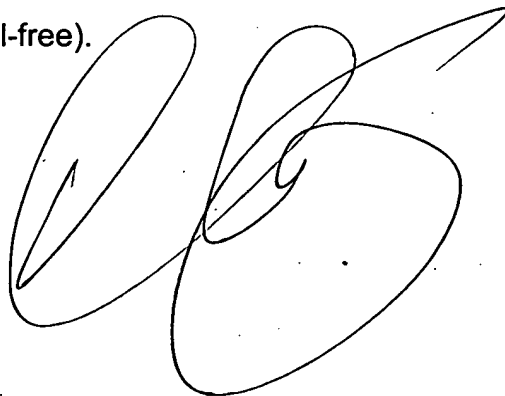
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nick Corsaro be reached (571) 272-7876.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

NM

August 25, 2006

A large, stylized handwritten signature in black ink, consisting of several loops and a long horizontal stroke.

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (canceled).
2. (previously presented): A wireless resource allocation method in a wireless communication system including a plurality of wireless terminals and a single access point having a bridge function, the method comprising the steps of:
 - (a) allocating a wireless resource to a corresponding wireless terminal and receiving data from said wireless terminal in said access point;
 - (b) performing a check to determine whether there is an error in said data which was received from said wireless terminal in said access point in the step (a); and
 - (c) sending an error occurrence message and allocating a wireless resource for retransmission of data to said wireless terminal simultaneously when said access point detects a data error in the step (b), wherein said wireless resource is one of a bandwidth and a time slot;
wherein, in the step (c), said error occurrence message is sent to the corresponding wireless terminal while said wireless resource for retransmission is allocated to the corresponding wireless terminal during a down-link period within one frame comprising the down-link period and an up-link period; and
wherein said wireless terminal does not send a wireless resource request message for retransmission of said data.

3. (original): The wireless resource allocation method of claim 2, wherein said down-link period comprises a preamble for synchronization, a broadcast period, and a download reservation period.

4. (original): The wireless resource allocation method of claim 2, wherein said up-link period comprises a contention period, and an upload reservation period.

5. (original): The wireless resource allocation method of claim 3, wherein during said down-link period, said access point transmits a broadcast message and various control information.

6. (original): The wireless resource allocation method of claim 5, wherein said various control information includes a length of said download reservation period, a location and a length of a message which said wireless terminal receives during said download reservation period, a length of said contention period, a length of said upload reservation period, a location and a length allocated to a message which will be transmitted by said wireless terminal during said upload reservation period, or acknowledge information or not acknowledge information which said wireless terminal transmitted to said access point during said upload reservation period of a previous frame.

7. (canceled).

8. (currently amended): A wireless communication method comprising:

(a) allocating a wireless resource to a corresponding wireless terminal and receiving data from the corresponding wireless terminal, wherein said wireless resource is one of a bandwidth and a time slot;

(b) performing a check to determine where there is an error in data which was received from the corresponding wireless terminal;

(c) informing the corresponding wireless terminal of error occurrence and allocating the wireless resource for transmission of the data to the corresponding wireless terminal simultaneously when the error occurs in the received data;

wherein said corresponding wireless terminal does not send a wireless resource request message for retransmission of said data, and

wherein, in the step (c), said error occurrence message is sent to the corresponding wireless terminal while said wireless resource for retransmission is allocated to the corresponding wireless terminal during a down-link period within one frame comprising the down-link period and an up-link period.



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APPLICATION NO./ CONTROL NO.	FILING DATE	FIRST NAMED INVENTOR / PATENT IN REEXAMINATION	ATTORNEY DOCKET NO.
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EXAMINER

ART UNIT	PAPER
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20070212

DATE MAILED:

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner for Patents

The claims amendment filed on 12/06/06 has been approved.